

# Hydraulic Bi-fold Vehicle Access Doors Offer Advantages

**By John Schweitzer,  
Chief Deputy, Corrections  
Branch, Multnomah County  
Sheriff's Office, Portland,  
Oregon**

**T**his article may be of little interest to those whose facilities are equipped with chain-link sliding gates at vehicle access points. However, for those whose facilities have toll-up gates at vehicle access points, it may be of real value.

I speak with experience, as we have seven toll-up vehicle gates at our main downtown jail facility, the Multnomah County Detention Center, our hub facility in which all bookings and releases take place. I can therefore speak with some authority about the disadvantages of toll-up gates:

- They are always in need of repair.
- Repairs usually require specially trained technicians.
- Repairs often require expensive parts that are hard to get.
- The gates come down, on occasion, on the roofs of transport vehicles, sometimes removing emergency lights in the process.
- They are notoriously slow in operation.

Because of all these problems, we frequently have to learn how to live without the gates for long periods of time.

Knowing that I was involved in planning for a new jail that would need two vehicle doors, our maintenance director invited me to go with him to observe a new type of vehicle door that was in use at another county in Oregon. I accepted his offer to visit the Lane County Jail in Eugene, Oregon. There I was introduced to the hydraulic bi-fold vehicle door.

The maintenance director and I were both very impressed with what we saw. Consequently, when I returned to Multnomah County I instructed our architects to change the plans for the new jail to include hydraulic bi-fold doors rather than roll-up doors.

Let me note here that I had previously worked with the architects in

**attempting to  
specify a  
heavy duty  
roll-up door  
for the vehicle**

gates. They could not find a company that produced such a door. Most American companies that make roll-up doors state that their doors are designed to open and close thirty to fifty times a day. But, as those of us in corrections know, vehicle doors in

our correctional facilities need to be opened and closed about 100 to 200 times a day. Clearly the roll-up doors are inadequate.

The hydraulic bi-fold doors, on the other hand, are rated to open and close over a million times before they need even routine maintenance. We installed two of them at our New Inverness facility. After two years we have found them to perform beyond our wildest dreams.

The advantages of hydraulic bi-fold doors are:

- They seldom need repair.
- If a repair is required, their design is simple enough that the county maintenance staff can usually make the repair.
- Parts, if needed, are readily available across the country and thus are usually inexpensive.

**The hydraulic bi-fold doors are rated to open and close over a million times before they need even routine maintenance.**

- Because the system includes sensors in the edge of the doors similar to an elevator door, you don't have to worry about a vehicle being damaged by the doors. No more lost emergency light bars.

- They are seldom out of operation. If they are, they can be opened and closed by hand; thus, you never really lose the use of the door.
- Except in extremely cold weather, they open and close much faster than traditional roll-ups.
- Installation cost is comparable to roll-up doors when done as original installation.

- The hydraulic operators and all accessory controls can be remotely located for security and enhanced service-ability.

The figure below provides three views of bi-fold hydraulic doors.

We are sold on these doors. Since we started using them, a neighboring county has built a new jail with bi-fold doors. We are also

planning to retrofit most of the roll-up doors in our downtown jail facility.

For additional information, contact John Schweitzer, Chief Deputy, Corrections Branch, Multnomah County Sheriffs Office, Portland, Oregon, (503) 248-5091. ■

